

ABSTRACT

There are provided a coating composition which can satisfactorily form a film even at a low temperature by chemical means in a simple and stable manner, has excellent film strength, adhesion, protective effect and other properties in the form of a functional film and can form a functional film at a low cost, a process for producing the coating composition, a functional film, and a process for producing the functional films.

A hydrolyzable reaction site is partially hydrolyzed to prepare a sol of a partial hydrolyzate which is then coated on a substrate. The coating is then baked to prepare a corresponding metal oxide film, thereby forming a thin protective layer. Since no hydrolyzate is precipitated in the sol of the partial hydrolyzate, excellent film strength, adhesion, protective effect and other properties are offered. The metallic compound having a hydrolyzable reaction site is selected from an organometal compound, such as a metal alkoxide, an organometal complex, and an organometal acid salt, and an inorganic metal compound, such as an inorganic metal salt. The functional film of the present invention can be utilized in a protective layer 6 formed of, for example, magnesium oxide in a plasma display.